

**Notice of Allowability**

Application No.

09/830,658

Applicant(s)

AROUDAKI, HICHAM

Examiner

Marcos L Torres

Art Unit

2687

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11-22-04.
2. ☒ The allowed claim(s) is/are 6-10.
3. ☒ The drawings filed on 22 November 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Alfred W. Froeblich on March 10, 2005.

Please cancel abstract in pages 13-14 and enter new abstract.

The application has been amended as follows:

***New Abstract***

A method for interference analysis in a mobile radio network having an adaptive antenna in at least some of its cells and including traffic channels and control channels, includes calculating an interference ratio of interference of one traffic channel of an adaptive antenna of a first cell to a user signal in a traffic channel of an adaptive antenna of a second cell. The interference ratio of interference in a traffic channel of a first cell not having an adaptive antenna to a user signal is calculated in a traffic channel of a second cell having an adaptive antenna. The interference ratio of interference in a control channel of a first cell with or without an adaptive antenna to a user signal is calculated in a control channel of a second cell with or without an adaptive antenna relative to the entire surface of the cell without considering the adaptive antenna in each of these cells.

***Allowable Subject Matter***

2. Claims 6-10 are allowed.

3. The following is an examiner's statement of reasons for allowance: A method/device for interference analysis for a mobile radio network comprising an adaptive antenna in at least some of its cells and having traffic channels and control channels, comprising the steps of: calculating, for mobile radio network frequency allocation planning, in each case an interference ratio of the interference of the traffic channels of an adaptive antenna of a first cell with traffic channels of an adaptive antenna of a second cell is calculated as a sum of the interference probabilities weighted with traffic values of individual part-cells, of the interferences of in each case one traffic channel of the adaptive antenna of the first cell with a user signal of in each case one traffic channel of the adaptive antenna of the second cell by adding the values of the traffic in all part-areas of the radio cell part-areas covered by the beams of the adapted antennas of the first and second cell; calculating the interference ratio of the interference of a traffic channel of a first cell without adaptive antenna with traffic channels of a second cell with an adaptive antenna as the sum of the interference probabilities weighted with the traffic values of the individual part cells, of the interferences of this traffic channel of the first cell with in each case one traffic channel of the adaptive antenna of the second cell by adding the values of the traffic in all part-areas of the radio cell part-areas covered by the beams of the adaptive antenna; and calculating the interference ratio of the interference of a control channel of a first cell with or without adaptive antenna with a control channel of a second cell with or without

adaptive antenna referred to the total cell area from the user signal/interference signal ratio of these control channels in the total cell area in each case without taking into consideration any adaptive antennas of one or both of these cells. Have not been found or fairly suggested in the prior art search.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any response to this Office Action should be mailed to:

U.S. Patent and Trademark Office  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Or faxed to:

(703) 872-9306

for formal communication intended for entry, informal communication or draft communication; in the case of informal or draft communication, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Art Unit: 2687

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcos L Torres whose telephone number is 703-305-1478. The examiner can normally be reached on 8:00am-5:30 PM alt. Wednesday Off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G Kincaid can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marcos L Torres  
Examiner  
Art Unit 2687

Mlt

  
**SONNY TRINH**  
**PRIMARY EXAMINER**